Perceived Risk and Consumer Online Shopping Behavior: An Empirical Study

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ABSTRACT
In the retail business, the previous decade has witnessed the beginning of a significant shift in customer behaviour, from shopping in physical stores to purchasing online. In India, the Internet is still seen as a novel channel for connecting customers with shops. Still committed to traditional brick-and-mortar establishments, Indians view internet purchasing as a risky endeavour. In this study, the author sought to identify the characteristics that contribute to the perception of danger associated with online buying. The coefficient of reliability for the 18-item scale was good, and factor analysis yielded six significant factors: product risk, financial performance risk, psychological risk, time risk, delivery capacity risk, and website performance risk.

Keywords: Online shopping, Internet, Perceived risk, website performance, time risk

INTRODUCTION

Over the past two decades, there has been a worldwide increase in the number of people who use the Internet to buy products and services. In comparison to conventional shopping, the Internet not only allows transactions between buyers and sellers from anywhere and at any time, but also provides users with an extensive selection of inexpensive products and a forum for the exchange of ideas. To achieve success in electronic commerce, businesses place a premium on consistently drawing clients and establishing long-term relationships with them on the web. Internet and mobile association's most recent projections indicate that more than 35,5 million Indians purchase online. The primary reason for this rise is the convenience of online shopping, which not only saves the client time but also offers a vast selection of products. It also allows users to compare the offerings of many providers with a single mouse click. Aside from this, the greatest advantage of online buying is the excellent discounts offered by the majority of e-retailers to attract and keep clients. Again, online retailers are open 24 hours a day, seven days a week to serve their consumers and give enhanced access to product ratings and reviews.

Despite this, consumers are still hesitant to make transactions over the Internet owing to a lack of confidence in the new technological environment. Despite the extremely low conversion rate, the majority of consumers continue to search for information on the Internet and purchase things offline at traditional retailers. According to previous studies, customers' perceptions of online transaction risk formed a significant barrier to Internet buying.

Perceived risk conceptually refers to the uncertainty a customer has when they are unable to predict the result of their purchase choice. It also shows the customer's subjective perception regarding the probability of a purchase choice backfiring. The nature of these dangers varies from customer to consumer based on product category, purchasing scenario, and personal, cultural, and psychological factors.

EXISTING LITERATURE

Online is a relatively new purchasing and distribution method for customers and sellers. Customers view it to be more complicated and dangerous than conventional brick-and-mortar commerce. In a study done by Rajjamma et al. (2007), it was determined that services are more likely to be connected with online buying, whereas tangibles are more likely to be associated with brick-and-mortar stores. According to a research done by Vijaysarthy and Jones (2000), this perceived risk effects both a customer's attitude and desire to purchase online. Miyazaki and Fernandez (2001) discovered that Internet exposure to him reduced perceived danger.

According to the study done by Doolin et al. (2005), the inability to check items before to purchase exposes consumers to a greater risk of merchant fraud than in a physical store.

In his study, Bhatnagar et al. (2000) identified two categories of hazards associated with online shopping: product risk and financial risk. Product risk is related with the product's performance or usefulness. It is greater for technologically complicated items such as electronics and hardware, as well as ego-related items.

According to the preceding discussion, it is evident that the perception of danger in the Internet environment is multifaceted. In light of this context, the present article, titled 'Perceived Risk and Consumer Behaviour Towards Online Shopping: An Empirical Investigation,' aims to give a better understanding of consumers' perceptions of risk in India with regard to online shopping.

OBJECTIVE OF THE STUDY

The primary objectives of this study are as follows:

1. To explore the relationship between perceived risk and online shopping behaviour of consumer.

2. To recommend additional enhancements necessary to increase the adoption of online purchasing.

METHODOLOGY

The purpose of this analytical study is to investigate the perceived risk associated with internet buying in India. The research was done in Bhubaneswar, and information was gathered using a survey. Based on earlier research, an 18-item measure covering all significant issues was developed. Risk perception was examined using a 7-point Likert scale, with 1 indicating "strongly disagree" and 7 indicating "strongly agree." On a convenience sample of 150 respondents, personal interviews were performed.

The obtained data will be analysed using factor analysis and SPSS 20 in order to draw significant findings from the study. All data were calculated with 95% confidence.

EMPIRICAL RESULTS

Demographic Profile

70% of the 150 responses are male, while 30% are female. 33% of respondents are between the ages of 31 and 45, while 67% are under the age of 30. 60% of all respondents have a bachelor's degree or above, 33.4% have a master's degree or higher, and 6.6% have just completed their secondary education. In terms of occupation, the majority of respondents (61.66%) are students, while 23.34 percent are salaried workers and 15 percent are professionals.

Reliability of the Study

The internal consistency of the scale was evaluated using Cronbach's alpha. The results indicated that the alpha value was 0.815%, which is fairly acceptable.

Table 1: Reliability statistics

Cronbach's Alpha	No. of Items
0.815	18

Factor Analysis

In the present study, factor analysis is employed to eliminate duplicate (highly correlated) variables from the survey data and to reduce the number of variables into a fixed number of dimensions/factors linked with consumers' perceptions of the risk of online buying. Utilizing the main component extraction approach with varimax rotation, the factor analysis is conducted.

To determine the robustness of the factor analysis solution, the Kaiser–Mayer–Oklin (KMO) and Barlett's tests were first calculated and presented in Table 2.

Table 2: KMO and Bartlett's test

Kaiser–Meyer–Olkin measure of sampling adequacy		0.560
Bartlett's test of sphericity	Approx. chi-square	796.663
	Df	153
	Sig.	0.000

The value of KMO statistics in the preceding table is more than 0.5, suggesting that factor analysis may be used to the supplied data set.

Six components with eigenvalues larger than one were extracted for the investigation. Table 3 displays the eigenvalue of the six components and the cumulative percentage of the variance.

Table 3: Total variance explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.324	18.469	18.469
2	2.672	14.846	33.315
3	1.738	9.653	42.968
4	1.656	9.200	52.168
5	1.221	6.782	58.950
6	1.123	6.237	65.187

Classifying these 18 variables into six components or factors explains 65.187% of the total variance, as determined using factor analysis using the main component approach. The proportion of the overall variance used as an indicator of how effectively the factor solution accounts for what the variables reflect collectively.

The first factor F1 is the most significant factor, explaining 18.469 percent of variation before to rotation. The second main factor that explains approximately 14.846% of the variation of the variables is factor F2. The third factor F3 accounts for approximately 9.653% of the variance. Similarly, the fourth factor F4 accounts for around 9.2% of the variation and the fifth factor F5 accounts for approximately 6.782% of the variation. Finally, the sixth factor F6 accounts for approximately 6.782% of the variance.

Table 4 provides the variable factor loadings for each of the five retrieved factors. In order to interpret the data, a 0.5 threshold is chosen for each variable in order to arrange them into factors by constructing a rotational component matrix.

Table 4: Rotated component matrix[a]

	Component					
	1	2	3	4	5	6
Products sold by online shopping sites are defective and unsafe	**0.762**	–0.043	0.114	–0.116	0.064	–0.271
In online shopping, product features seldom match to the web specifications	**0.751**	0.026	0.142	–0.132	–0.061	0.201
Performance of the product purchased via online shopping is not as expected	**0.728**	0.004	0.023	–0.059	–0.064	0.073
In online shopping, often there is a probability of additional hidden costs	0.086	**0.647**	–0.197	–0.126	0.41	0.037
There is a lack of protection to the credit card information while shopping online	–0.029	**0.736**	0.104	0.243	0.137	0.024
In online shopping, it is difficult to get back the money	0.05	**0.665**	0.283	0.408	0.004	0.084
In online shopping, there is a chance of losing sensitive information related to bank	0.232	**0.584**	0.267	–0.291	–0.356	0.033
Online shopping leads to loss of time due to slow website and so on	0.002	–0.006	**0.728**	0.205	0.286	0.013
Online shopping often leads to psychological discomfort and tension	–0.201	0.338	**0.685**	–0.201	0.194	–0.113
Online purchase affects the self-image of a shopper	0.22	0.111	**0.626**	0.105	–0.192	0.121
In online shopping, often there is a uncertainty about the delivery of a product	0.242	–0.063	–0.151	**0.562**	–0.303	0.308
Products are often damaged during shipment	0.121	0.309	0.174	**0.729**	0.141	–0.057
Products are often lost during shipment	0.345	0.225	–0.089	0.663	–0.12	0.069
The delivery time for the product is not satisfactory	–0.245	0.19	0.148	0.069	**0.715**	0.004
The product is not delivered on time	0.35	0.02	–0.07	–0.265	**0.589**	0.41
The website of online shopping store is complex to use	0.377	0.106	–0.695	0.18	0.066	**0.686**
The website does not provide complete information about the product	0.223	–0.274	0.278	0.049	0.136	**0.645**
Authorisation mechanism of the online shopping sites are not satisfactory	–0.123	0.321	–0.015	–0.084	0.008	**0.779**

Extraction method: principal component analysis.
Rotation method: varimax with Kaiser normalisation.

The first factor F1 with three significant factor loadings can be referred to as product risk, since it contains 'defective and harmful products' (0.762),'mismatch of product to online specification' (0.751), and 'bad product performance' (0.728). The second factor F2 with four significant factor loadings can be referred to as financial performance risk because it includes "probability of hidden cost" (0.647), "lack of credit card information protection" (0.736), "poor refund policy" (0.665), and "loss of sensitive financial information" (0.584). The third factor F3 with three significant factor loadings represents psychological risk, as it consists of 'time wasted owing to poor web operation (0.728)', 'psychological discomfort (0.685)', and 'effect on self-image (0.626)'. 'Uncertainty regarding the delivery of a product' (0.562), 'product damage during shipping' (0.729), and 'loss of products during shipment' (0.663) comprise the delivery risk factor F4, which has three significant factor loadings. The fifth factor F5, with just two significant factor loadings,

represents time risk, since it contains "unsatisfactory delivery timetable (0.715)" and "lack of on-time product delivery (0.589)". The sixth factor F6 with three significant factor loadings may be referred to as the website performance risk, as it consists of 'complexity of website to use (0.686)', 'incomplete information about the product from the website (0.645)', and 'inadequate authorization method (0.779)'.

FINDINGS

The study's findings indicate that the first extracted element, product risk (which accounts for 18.469 percent of the total variation), is the most significant aspect for online shopping sites to address in order to lower the perceived risk of the customers. Similarly, financial performance risk (which accounts for 14.846% of the total variation) is the second most influential element on the customer's view of an online shopping website. Next to financial performance risk, psychological risk (9.653% of the total variance) is the third major factor, followed by delivery risk (9.200% of the total variance), time risk (6.782% of the total variance), and website performance risk (6.233% of the total variance) that online shopping sites must consider when developing a strategy for customer orientation and satisfaction with their service.

CONCLUSION

Indian consumers are very new to the online purchasing scene. As a result of India's rapid expansion of Internet connectivity to its whole population, the country's economic development in the next years is anticipated to be phenomenal. However, it is crucial for vendors to quantify and lower the perceived risk of the client, as this will enable them to maximise both customer orientation and profit satisfaction.

Limitations of the Study

The following limitations are associated with this study:

- Due to the tiny sample size, it is likely that the requisite degree of precision does not exist.
- Because this study was done in a small location, there is a possibility that the results are inaccurate.
- The perception of a certain online shopping site by its customers has not been predetermined.

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